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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,830	12/11/2006	David R Hirst	DHN/363/PC/US	9247
2543	7590	07/08/2009	EXAMINER	
ALIX YALE & RISTAS LLP			ZHANG, JUE	
750 MAIN STREET				
SUITE 1400			ART UNIT	PAPER NUMBER
HARTFORD, CT 06103			2838	
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			07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,830	Applicant(s) HIRST, DAVID R	
	Examiner JUE ZHANG	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 10-11 is/are rejected.
- 7) ☒ Claim(s) 4, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/22/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the application filed on 3/22/2006. Claims 1-7, 10-13 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-3, 5-7, 10-11 are rejected under 35 U.S.C. 102(a) as being anticipated by Dragos (NPL_Grid-Friendly Technology at Colorado State University, hereinafter Dragos).

Claim 1, Dragos discloses a responsive load device adapted to be connected to an electric load which consumes intermittent or variable electric energy to maintain a variable between upper and lower limits of the variable, the upper and lower limits of the variable being derived from and defined around a setpoint of the variable (col. 2, page 3, page 3)(Fig. 4), the apparatus comprising:

means for receiving an input indicative of the frequency of the mains power supplied to the load from a grid (e.g., the frequency sensor)(Fig. 4); and

means responsive thereto to determine a level of power consumption by said load in accordance with the determined stress level (e.g., the refrigerator being turned

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of when the instability of power being detected)(col. 2, page 3, col. 1, page 4) and to prevent the setpoint being increased when a generation shortage grid stress level exceeds a first maximum threshold value and/or being decreased when a demand shortage grid stress level is below a first minimum threshold value (e.g., 60Hz+/- 7.5mHz)(i.e., the limitations is implicitly taught during the period of time that the refrigerator being shut-down without power by the load controller) (Fig. 4).

Claim 2. Dragos teaches the limitations of claim 1 as discussed above. It further teaches that wherein the device is responsive to the system generation shortage grid stress level exceeding a second minimum threshold value, higher than the first, to prevent the load consuming power (e.g., when the frequency fluctuation exceeding 60Hz+7.5mHz).

Claims 3, 10, Dragos teaches the limitations of claim 1 as discussed above. It further teaches that wherein the device is responsive to the demand shortage grid stress level being below a second minimum threshold value, lower than the first, to increase the power consumption of the load to a maximum (e.g., when the frequency fluctuation back to within the +/- 7.5mHz range, the load being reconnected with full power consumption after the shutting-down period caused by the grid stress).

For method claims 5-7, 11, note that under MPEP 2112.02, the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed

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the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore the previous rejections based on the apparatus will not be repeated.

Allowable Subject Matter

3. Claims 4, 12-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matters:

For claims 4, 12-13, the prior art does not disclose or suggest, primarily, means adapted to automatically optimize or adjust the predetermined threshold values.

The aforementioned limitations in combination with all remaining limitations of the respective claims are believed to render the aforementioned indicated claim and any dependent claims thereof patentable over the art of record.

Examiner's Note:

5. Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the

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references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

6. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jue Zhang whose telephone number is (571) 270-1263. The examiner can normally be reached on M-TH 8:00-5:00PM EST, Other F 8:00AM-4:00PM EST

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash N. Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adolf Berhane/
Adolf Berhane
Primary Examiner
Art Unit 2838

JZ